

ABSTRACT

The present invention provides a chemical reactor with which nitrogen oxide emission control can be performed very efficiently at a low applied voltage when an excess of oxygen is present in a combustion exhaust gas. The present invention is a chemical reactor in which the upper cathode, lower cathode, and anode that make the chemical reactor are a mixture of an electron-conductive substance and an ion-conductive substance, and the electron-conductive substance and ion-conductive substance of the upper cathode are mixed in a specific ratio, which makes it possible to lower the applied voltage and reduce the power consumption of the chemical reactor, and is also a method for the emission control of nitrogen oxides in which this chemical reactor is used.